



West Penn 99'ers



Supporting the TI-99/4A Home Computer

Established 1985

OCTOBER 1993
ISSUE #97

FOR THE RECORD (AUG)
by Frank N. Zic

Mickey started the August meeting late, oops, what am I saying, she started the meeting early at 7:10 PM. Sorry, force of habit to pick on Mickey. If you think the start of the meeting was strange, it was just a prelude of things to come. In brief the theme of the evening was "It's Robbie's Fault". I'll explain a little later. Then, too, let's not forget the ever present Coke vs Pepsi war. Boy, what a night, you had to be there to really enjoy it all. She started off by giving appreciation to myself for some of the minor things I do and a well deserved thanks to Joe and Robbie Ekl for their many years of father-son participation. You see, Robbie started with us when he was just eleven years old and now he is ready to go away to college. We all wish him great success in college and in all his later endeavors. He's a fine lad and it was nice to see his mother come in to be a proud part of the festivities. Proud parents are always a joy to see. The theme of, "It's Robbies Fault" was hung on him because he was so young and

unassuming. He took it all very calmly, even when we kidded him on the BBS. The theme was emphasized by a large poster made by Mickey for this special occasion. I know this report may be a little longer than usual, but (What the hay) it's my interpretation of the events. The always present conflict goes on with the battle of the soft drinks. In the front of the room there was a poster of the flying Pepsi man sub-titled Mickey's Mantle. This was brought in by Jack Whelan. A large banner of a flying Pepsi girl was made by Paul Brock. Countering all this was a large Teddy bear dressed in Coca Cola print attire. Art had this set up in the rear of the room as his defense. The closeness of this club is really enjoyable.

I'd better get on with the meeting notes. Favorable reports were given by Lynn, Bob and Paul on their respective areas. An inventory of club equipment was turned in by Paul, John, Norm and Ohi. Each picked a unique way of reporting on their areas. What nice gestures. When everyone pitches in the meetings become more enjoyable. Yes, we owe much of the interest generated to the ever striving leadership of our president Mickey. I gave a brief report on the BBS and Mickey gave her re-

grets to all those she used to hassle while using the board. She is unable to join in now because of the long distance charges. Mickey is now receiving all of the other clubs Newsletters and is enjoying their contents, even the hardware articles. Heaven help us if she comes up with yet more ideas, she's tuff to keep up with now. She asks that we continue to bring in examples of, "Things we use our TI's to accomplish". Let's have as many members attend the October meeting as possible because Joe Ekl will bring in a special camera for a family portrait of our club members. The theme of the September meeting is "Swap or Sell". This can only be a success if we each bring in something to show or demo, sell or swap or raffle. Remember John Willforths tremendous offering? Everyone give it some thought and participate. Norm gave us highlights of the July MICROpendium to look into, seems he enjoys the entire publication by all the articles he selects. Yes, this our only TI dedicated magazine. Let's keep supporting it for the really nice articles we are treated to. If you don't think they are valuable, just try writing a few articles on your own that can be published. It's a real bargain even at the new rate.

Norm mentioned: p5 Harrison's XB Compiler, p8 Regena's Telling Time, p12 Comparing PC to TI assembly, p16 rotating TI-Artist Instances, p19 buying floppy disk drives, p20 SCSI report and Chicago fair, p21 RichGKXB, p24 FNLWB 5.40

Charles Good, p25 Collecting cartridges, p27 System of the month and p29 Regulator jumping. Next we had a nice demo of the latest computer system that Rob and his dad completed. It is a real show piece and will be written-up sometime soon. The trials and tribulation of doing the project is highlighted by contributions from John Willforth, the beautiful and useful end product and most importantly, the bonding of a Father and Son. A very nice success story. This evening we also welcomed one of our groups latest member, Jim Cerini. Paul gave a demo on the Page Pro Formatter for two column printing. The raffle was held with seven small prizes offered. A nice social gathering capped the evening with all enjoying a piece of cake decorated with a nicely made picture of a TI computer and of course the wording, "It's Robbies Fault" Finally- May the good 4's be with you.

FOR THE RECORD (SEPT)
by Frank N. Zic

Mickey started the September meeting at 7:15 PM. Her thanks went to all who participated in the kick-off party for "young Rob" as this is how we will always remember him. Talked with his Mother the day after the meeting and she said he is doing fine. However, she said Rob and she both had some adjustments to make. Joe brought in a very nice group picture of the event. And why shouldn't it be nice, we were all on it, Ya. Sorry about the mix-up on not having the minutes in the August NL. We

will have it added to this months' NL. Lynn and Bob gave their reports. Paul mentioned a defragmentor article in one of the NL we received, see him if interested. Mickey made up a list, using TI-Base, of 50 clubs that we exchange NL's with. Since Paul and Evelyn will be moving soon, Paul will retain the current 6 months of NL's and bring them to the meetings as usual and John Whelan will store all the old ones. Jim Peters will bring in the back-up TI system to the meetings each week. Dick Ohi has the Video library circulating each month and Norm does the same with the module library. I gave a report on the BBS and downloaded a Halloween picture for our disk library. See Bob for this one. An interesting nationwide TI game contest is being offered by the V.A.S.T. newsletter group. The idea is to try and beat the high scores their club has posted. Hum, might have to look into this challenge. Come on folks give it a try. We'll post your conquering score in our newsletter. Who knows, maybe a small gift will be forthcoming. As though national recognition wouldn't be enough. Norm suggests reading the MICROpendium from cover to cover with highlights on: p11 (Assembly), p14 (TLM), p16 (Printers), p19 (Bio-rhythms), p22 (HFDC), p23 (Time Calc), p25 (Myarc RS232), p26 (Program Recorders), p27 (Page Form), p28 (Both Sides) and p29 (TI and PC).

Now down to some really serious business, nomination of officers for next year. Don't be bashful, jump in and get

your feet wet. We can progress successfully only if interested members participate. Sometimes the shoulders of those carrying the load for a long time start to droop a bit. New faces and new ideas are always welcome and you will receive all the backup to get you started down the right road. Please be ready at the November meeting to place your name in the running. Who knows, you may even win. Our first Swap and Sale night didn't really do too well. I guess everyone still wants to keep their really good TI stuff. I may have a very nice offering at a future meeting. This special equipment is spoken for right now, but that could change. More on this later. Three nice prizes were offered in the monthly raffle. Lynn Gardener showed us a very nice Genealogy program that she has researched on her side of the family. Art's family side is next. It will be nice to see who has the most skeletons in their closet, persons such as pirates, famous personalities or even royalty, Na. Joe Ekl also has been interested in this area. Well I guess that's it for this report. May the good 4's be with you.

EDITOR'S NOTE

Due to the BBS having a problem about the time Frank uploaded the minutes to the board there was no notice of any mail for me when I logged on. I did not check with Frank figuring he was on vacation or maybe not feeling up to par. I know now to contact him if no mail on the BBS within a week.

No. 9601 * Trading Post *
 On: 09/16/93 9:28pm
 By: HARRY TRENTES 45
 (BRIDGEVILLE PA)
 To: ALL
 Sb: DISK CONTROLLER FOR TI994

Hi, I am looking for a ti disk controller card for a p-box if you have one for sale leave me a note. Also, I have recently picked up a lot ti 99 hardware and software. Will post items i wish to sell in the near future. Thanks, Harry

Words of Wisdom from
 The Cactus Patch...

Any fool can start arguments;
 the honourable thing is to
 stay out of them.

BBS DATE ERROR

Today's date: 10/09/93 but you will be confused by the dates of these messages now on the board. No. 9612 * General Interest * On: 10/06/93 3:47pm looks OK but No. 9614 * General Interest * On: 10/10/93 1:21pm (Rcvd 10/14/93), No. 9615 * General Interest * On: 10/13/93 6:50pm (Rcvd 10/14/93), 9616 * General Interest * On: 10/14/93 12:37pm, No. 9617 * General Interest * On: 10/14/93 12:57pm and No. 9618 * General Interest * On: 10/14/93 1:00pm are in the future. If you want tomorrow's news today log on to the BBS. We can blame the error on a gremlin or maybe someone else is burning the midnight oil too. At the meeting I was told an article was put in twice last month. Anyone know how to shut off the midnight oil?

Editor

FOR SALE

Green monitor (APPLE)
 TI 99/4A Black & silver
 Speech synthesizer and all
 books. \$50.00
 Joe Slager (412) 478-2940
 General Delivery
 North Apollo PA 15675

APPLE II GS computer (2 disk drives)
 APPLE II C computer with lots of software
 Mary Ann DeGrange
 (412) 929-2842

Let your APPLE friends know or maybe your second machine is a fruit.
 EDITOR

NEWSLETTER/MEMBERSHIP RENEWAL

To renew your membership or newsletter subscription here is where to send it.

LYNN GARDNER
 642 LOIS DRIVE
 PITTSBURGH PA 15236-2436

RENEW YOUR MEMBERSHIP DUES!
 \$15.00 PER YEAR FOR
 INDIVIDUAL/FAMILY
 \$10.00 PER YEAR FOR
 ONLY OUR NEWSLETTER

EDITOR
 RALPH J VASKO
 1 VIRGINIA DR
 DONORA PA 15033-1607
 (412) 379-8762
 PUG BBS #32

Articles are accepted as hard copy, ASCII text files on the PUG BBS, MS-DOS Word Perfect V4.2, V5.0 or MS-DOS ASCII text files on disk. Deadline is the Sunday after the meeting. My TI systems are not set up. PAGE PRO articles

OCTOBER 1993

WEST PENN 99'ERS

PAGE 5

like PAUL'S PAGE will have to be photo ready.

HOME OF THE PEPSI--COKE WARS!!

NEWSLETTER EXCHANGE

NEXT MEETING
OCTOBER 19, 1993

Exchange newsletters are to be sent to:

CALL THE PUG BBS
300/1200/2400
(412) 885-3483
24 HOURS A DAY

WEST PENN 99'ERS
C/O MICKEY CENDROWSKI
RD 1 BOX 133
RUSSELLTON PA 15076

PEPSI-----COKE!!!

Public Notice:

Bodenmiller Computers has just released a new game called Who's Behind the Mexican UFO's. This new game requires The Missing Link (from Texasents), OS/SD disk system, XB, and 32k. The game is a text/graphics adventure, and you select the way the story goes by multiple choice. No more will you have to type in a simple sentence five times until the computer understands, just press a key.

worlds? This game requires 32k, disk system, XB, and a joystick. Order now for only \$7.95.

The Mexican UFOs, as well as Astro-Mania and War on the Sea, are being manufactured and distributed by RamCharged Computers. Write RamCharged Computers now at:

The game has high quality, full color, full screen graphics, and the story is displayed in text windows. Because the game uses The Missing Link, it has Bit-mapped graphics, giving you stunning graphics on your II. The game is on two OS/SD disks, and even allows you to save your game using the "Bookmark" to save your place. Order Who's Behind the Mexican UFOs now for only \$12.95.

Ramcharged Computers
P.O. Box 81532
Cleveland, Ohio 44181

or call them after 6 pm EST at:
Local number: 243-1244 or,
Out of town: 1-800-669-1214

Bodenmiller Computers also has two other games out currently, Astro-Mania and War on the Sea. War on the Sea is an XB game requiring a disk sys, XB, 32k, joystick, and an optional Speech Synthesizer. It is a shooting gallery type of game, where you must aim your crosshairs to hit enemy ships. On the submarine attack levels, you must carefully time your release of depth charges to hit the enemy subs. You get promoted in rank as you play, and you can even win medals for your scores.

Mexican UFO's.....\$12.95 - \$7003
War on the Sea.....\$7.95 - \$7002
Astro-Mania.....\$7.95 - \$7001

Each mission's location is shown on the World map screen, along with a brief description. If you like action, this may be the game for you. Order now for only \$7.95.

If you would like to contact me, write:

Astro-Mania is my first game, a space game where you must defeat the aliens invading you twin worlds to shut off the huge force fields they have placed around your planets. If you can destroy all the enemy ships, and the two forcefield generators, you must fight with their Mother Ship. The Frizoids are waiting. Can you save your

Timothy C. Bodenmiller
Bodenmiller Computers
43 Monroe Street
Berea, Ohio 44017

Sincerely,

Timothy Christopher Bodenmiller

////////////////////////////////////
\\
/ Welcome to the Universe of \\
\\ Bodenmiller Computers //
/
////////////////////////////////////

WEST PENN 99'ERS CLUB INFORMATION

TRAVER SEEKING TALENT

by Steve Burns
Bluegrass 99'ers

NEXT MEETING DATE: OCTOBER 19 1993
MEETING LOCATION: PENNS WOODS
CIVIC ASSOCIATION
JUST OFF ROUTE 30
N. HUNTINGDON, PA
TIME OF MEETING: 7:00 P.M.

LIST OF WEST PENN OFFICERS FOR 1993

PRESIDENT: MICKEY 412-265-5201
VICE PRESIDENT: NORM 614-264-6442
TREASURER: LYNN 412-835-4304
RECORDING SEC: FRANK 412-751-6065
CORRESPONDING SEC: PAUL 412-478-2754
LIBRARIAN: BOB 412-863-5672
NEWSLETTER EDITOR: RALPH 412-379-8762

GENERAL ITINERARY OF THE CLUB'S MEETING

6:45 P.M. DOORS OPEN
7:00 P.M. GENERAL MEETING
7:45 P.M. DEMOS AND NEW INFO
9:45 P.M. ONE ON ONE HELP
9:45 P.M. SOCIALIZING
11:00 P.M. DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

LATEST T.I. NEWS AND SOFTWARE DISCOUNTS
"NEW SOFTWARE" FROM MS EXPRESS SOFTWARE
"RATTLESNAKE BEND" - DEMO BY MICKEY
"ADVENTURE DATA BASE"- DEMO BY MICKEY
NOTUNG'S "TI CASINO" - DEMO BY MICKEY
"WHO'S BEHIND THE MEXICAN UFO'S" - DEMO

RENEW YOUR MEMBERSHIP DUES!

\$15.00 PER YEAR FOR INDIVIDUAL / FAMILY
\$10.00 PER YEAR FOR ONLY OUR NEWSLETTER

Barry Traver, author of a wide variety of TI programs and utilities and frequent TI columnist for *Micropendium*, is seeking talent for his diskazine, *The Genial Traveler*. Recently having been diagnosed as having Carpal Tunnel Syndrome, Traver is now limited in his ability to use the computer. He has also lost a number of his regular contributors to large software companies, moves to other computers, etc.

The diskazine is published on a sort of quarterly basis, depending on the amount of material that Traver has on hand. In past years it has been the showcase for well-known TI authors, such as Barry Boone, Mike Dodd, and many others. It introduced such things as ARCHIVER, BXB, ALSAVE, ARCHIE, XCB, and many other programs and utilities.

Traver is especially looking for material that is consistent with *Genial Traveler's* past format, which deals primarily with assembly links to Extended BASIC and programs that use them in innovative ways, but he is open to any unique programs or useful routines and utilities. He has also expressed an interest in Extended BASIC programs that make use of Missing Link or his own XB extension, XCB. This is not to say that contributions should be limited to just these areas. *Genial Traveler* has always been known to publish a very wide variety of things. As a matter of fact, the only criterion is that the contributions should be interesting and unique.

What's in it for you? Fame and fortune of course. Well, actually just fame—and even then only within the TI community. But as I mentioned above, G.T. has been the springboard for many TI programmers, as well as an outlet for routines, demos, and subprograms. In addition, your programming efforts will benefit from wider distribution, and any routines or subprograms you contribute will be given an opportunity to be used by others and may be the basis for more software that will benefit the rest of the TI world. You will also receive *Genial Traveler* FREE! This will give you the opportunity to build on things YOU see in G.T.

You can reach Barry at 835 Green Valley Drive, Philadelphia, PA 19128, or by phone at (215) 483-1379.*

Using The Missing Link

By Tim Chris Bodenmiller
Article #1

The Missing Link, by Texaments, is a set of assembly language routines designed to greatly enhance the Extended Basic environment. These enhancements include utilizing the bit-mapped mode, "windows" for text and graphics, better input, screen dumps, and even the ability to use TI-Artist pictures. As you can see, this adds up to quite a lot.

The Missing Link is not really difficult to use, but you do need to have some things explained to you, and you need to learn a different way to think in terms of graphics. These articles will hopefully explain this unique, and very rewarding programming environment.

First, to use the Missing Link, insert the Missing Link disk into a drive and enter Extended Basic. The Missing Link does not auto-load, so now you need to type OLD DSK1.TML and then type RUN. If you wanted too, you could save this program to disk and name it LOAD if you get tired of always having to load it yourself. Once the program begins running, you are presented with several options. First, you must tell it which disk controller you have. Now enter 1 for the number of files. This is the equivalent of a CALL FILES(number) in XB. It tells the computer how many files can be open at one time. You usually want to enter 1, because it saves memory (more on this in a later article). Now you can push one for 16-color mode, or push 2 for the 2-color mode. The two color mode also saves memory, and is therefore suited to more text intensive programs. In this case, let's push 1 for the 16 color mode. The screen will change momentarily, and finally you are presented with a green screen and a prompt similar to XB's, with the exception of a cursor shaped like Texas.

Now that you are in the Missing Link, let's learn a little about this new programming environment. All the XB commands still work, except any statement that refers to graphics (Except for Call Screen). That's right, Print, Call CHAR, VCHAR, HCHAR, SPRITE, GCHAR, ACCEPT AT, DISPLAY AT, ECT. NO LONGER WORK IN YOUR PROGRAMS. All they will do is make garbage on the screen. BUT DON'T WORRY, the Missing Link has a whole bunch of MUCH BETTER, NEW GRAPHICS COMMANDS. All the other commands, like PI, FOR TO, ABS, CHR\$, GOTO, ASC, SUB, GOSUB, WORK JUST LIKE ALWAYS. ONLY THE COMMANDS THAT USE THE SCREEN CHANGE! And I'm sure that you will find the new commands to be quite an improvement.

All of the Missing Link's new commands must be accessed using CALL LINK. For example, the first command we will learn is CALL LINK("CLEAR"). Yep, you guessed it, this command clears the screen. Not a big feat since you haven't learned how to put anything on the screen yet, but that is coming soon.

Let's learn one of the most fun commands, CALL LINK("LOADP","DSK#.filename"). This command loads a TI-Artist picture. Put your TML (The Missing Link) disk in Drive one, and lets give it a try.

Enter this program.

```
10 CALL LINK("LOADP","DSK1.LOGO")  
20 GOTO 20
```

This little program will load in a TI-Artist picture and display it on the screen until you push Function 4. Now you can design your own

Title screens, menu screens, ect. using a drawing program, and bring them right into your XB programs. Time to get out all those Fonts and instances you have somewhere right!

Now lets look at one more TI-Artist picture, change line 10 to read:
10 CALL LINK("LOADP","DSK1.PSSCRN")

Now when you run the program you will see a sample screen from the Paper Saver program that is included with TML.

Now lets learn a new command, CALL LINK("COLOR", foreground, background). This command changes all the colors on the screen to a new foreground and background color. Lets change our program again. Type:
NEW

Now lets enter the new program. Type:
10 CALL LINK("LOADP","DSK1.PSSCRN")
20 FOR L=1 TO 1000 :: NEXT L
30 CALL LINK("COLOR",15,5)
40 GOTO 40

Remember to press Fctn 4 to stop it.

This program will demonstrate the COLOR command. Now lets clear the screen at the end. Type:

```
40 FOR L=1 TO 1000 :: NEXT L
50 CALL LINK("CLEAR")
60 GOTO 60
```

By now you are probably ready to call it quits, but before you beat your brains out pushing Fctn =, you should probably be told that it has been disabled. Don't panic, there is another way out, as uncommon as it is, try typing BYE. No more accidental program erasures.

Hopefully, from these humble beginnings, we will soon have you happily writing super, great, new programs. And before it's all finished I'll show you all about manipulating text, using windows, doing graphics, and even loading in your own assembly routines. At least for now you can get a whole lot more on your XB screens. Next time we will learn about INPUT and PRINT (the new versions!).

Oh, and if you want to try Papersaver, start up the Missing Link the way it shows above, and then type,

```
RUN "DSK1.PS"
```

HAPPY PROGRAMMING!!!



See Ron Morkus of:



RAMCHARGED COMPUTERS
for The Missing Link and anything else you
may need for your TI-99/4A.

—*

*—

FROM THE SOAP-BOX

by Steve Burns
Bluegrass 99'ers

Although a large number of TI users may not know it, there is a great battle raging in the ranks of TI-dom. In TI history it will probably be known as the "Battle of the Memory Cards". The two camps are Asgard and Western Horizon Technologies.

Asgard recently announced that they are now selling their Asgard Memory System. The AMS switches 4K banks of memory and uses no DSR (Device Service Routine). Switching is done under software control provided with their special assembler.

Western Horizon Technologies' 4A MEMEX card is still not available, but it is said that it will use the same system as RAMBO, which has been on the market for more than a year now. This system uses 8K banks and is done mostly under DSR control.

Which system is better? Who knows? And, for that matter, who cares? What we (the end user) really want to know is if anyone will support either of them with software and if the battle will continue to get in the way of progress in the TI world.

Fighting within the TI community basically stems from two problems. Software and hardware dealers have been accused of neglecting to pay royalties on products. Whether this is true or not, only the dealers know. Poor record keeping on the part of the dealers has contributed to this problem. The other cause is related to the small size of the TI market and the fact that it cannot really support competing products adequately. As in the case with 80-Col devices, one company or the other is bound to lose money on R&D, prototyping, etc. if the product "loses" the sales battle. In the TI world, the winner is not necessarily the best product but frequently the cheapest or the first to hit the market.

In the fight that is now brewing, the sides have been formed by a mixture of the two causes mentioned above. Some of the people involved have chosen to support a particular device because they are involved with its development while others have a grudge against the opposing company.

Aside from the obvious problem of having to decide which product he prefers, the end user is also affected in other ways. For example, the guest "speaker" on conferences held on electronic forums such as GENIE has recently had all of his time monopolized by questions as to which memory system he prefers. Attempts are usually made to convince him which is better and force him to say he will support one or the other. People with other types of questions for the guest are usually "pushed out" of the conversation, so the topic ALWAYS seems to gravitate back to the memory card issue. This is not only rude behavior but also costs people time and money. People interested in hearing what John Johnson or Alex Hulpke (two recent examples) have to say are forced to sit through arguments about the memory cards.

I DO have a preference of memory cards although I have not made specific plans to purchase one yet. No arguments from either side have particularly swayed me. I just looked at what each one could do and would be compatible with. I also looked at whether or not I could make use of them, not being an Assembly programmer. No, I am not going to choose sides here. I know what I would want out of a memory expansion, and so do you.

No amount of bickering is going to make a difference to any of the end users. The only thing we want is a device that is useful to us personally. The developers should realize this. If they haven't learned from past experience, then perhaps they will this time. The end users will decide what they want from their computer and then pick the card that makes it possible.

PROGRAMMING LANGUAGES

By Earl Raguse

This appeared in the Brevard UG Newsletter, and was written by David Rosenthal and Daniel Salamar of the University of Waterloo, Waterloo, Ontario, Canada. Because there are so many programming languages available, learning about which one to use for a particular project, by reading the manuals, would be very time consuming, the authors have compared them to cars we all know.

ASSEMBLER: A Formula 1 race car. Very fast but difficult to drive, and expensive to maintain.

FORTRAN II: A model T Ford. Once it was king of the road.

FORTRAN IV: A model A Ford.

FORTRAN 77: A six cylinder Ford Fairlane with standard transmission and no seat belts.

COBOL: A delivery van, bulky and ugly, but it does work.

BASIC: A second hand Rambler with a rebuilt engine and patched upholstery. Your dad bought it for you to learn to drive. You will ditch the car as soon as you can afford a new one.

PL/I: A Cadillac convertible with automatic transmission, a two toned paint job, white wall tires, chrome exhaust pipes and furry dice hanging from the rear view mirror.

C: A black Firebird, the all-macho car. Comes with optional seat belts (lint) and an optional fuzz buster (escape to Assembler).

ALGOL 60: An Austin mini. Boy what a small car.

PASCAL: A Volkswagon beetle. Its small but sturdy. Was once popular with intellectuals.

MODULA II: A Volkswagon Rabbit with a trailer hitch. (get it?)

ALGOL 68: An Aston Martin. An impressive car, but not just anyone can drive it.

LISP: An electric car. Its simple but slow. Seat belts are not available.

PROLOG/LUCID: Prototype conceptual cars.

MAPLE/MAXSYMA: All-terrain vehicles.

FORTH: A go-cart.

LOGO: A kiddie's replica of a Rolls Royce. Comes with a real engine, and a working horn.

APL: A double-decker bus. It takes rows and columns of passengers to the same place all the time, but it drives only in reverse, and is instrumented in Greek.

ADA: An Army-green Mercedes-Bentz staff car. Power steering and power brakes are all standard. No other colors or options are available. If its good enough for generals, its good enough for you. Manufacturing delays caused by difficulty in reading the design specifications are starting to clear up.

SNOBOL: An eighteen wheeler. Handles large things efficiently, but hard to shift. No seat belts, lots of shocks.

LOGO SUMMARY
By John Bolda
(and E Raguse)

LOGO can be fun, but you need the LOGO module and the 32k memory expansion. Use the command RECALL to call up programs saved to disk. Here is a small portion of the available commands.

PREDEFINED VARIABLES

:ALL is [0 TO 31]
:CLEAR is 0
:PLANE is 1 \ Called by
:TRUCK is 2 ; Make Shape
:ROCKET is 3 ; MS
:BALL is 4 ;
:BOX is 5 /

COLORS

:BLACK is 1
:GREEN is 2
:LIME is 3
:BLUE is 4
:SKY is 5
:RED is 6
:CYAN is 7
:RUST is 8
:ORANGE is 9
:YELLOW is 10
:LEMON is 11
:OLIVE is 12
:PURPLE is 13
:GRAY is 14
:WHITE is 15

DIRECTIONS

:NORTH
:EAST
:SOUTH
:WEST

MOTION & MISC COMMANDS

HOME Basic Position, Screen Center
ST Show Turtle
HT Hide Turtle

BK Back (Turtle or Sprite)
FD Forward (Turtle or Sprite)
LT Left (Turtle or Sprite)
RT Right (Turtle or Sprite)
SH Set Heading SH 90 (0-259)
SS Set Speed SS 33 (-127 - 127)
SC Set color SC :PURPLE
SX Set X coordinate (-120 to 119)
SY Set Y coordinte (-47 to 96)
SXY Set X and Y cordinates.
SV Set both X and Y velocity
SXY Set X velocity SXY 120
SYV Set Y velocity SYV 13
FREEZE Stops all Motion
THAW Starts Motion
NOTURTLE Exits Turtle mode

Examples:

LT 30 (left 30 degrees)
RT 120 (right 120 degrees)
TELL 1 HOME (see TELL)
SH 90 (go East)
SC SKY (set sky color)

DRAWING COMMANDS

DOT(x y) Plots point at x y
PD Pen Down (Draw)
PE Pen Erase (Undraw)
PR Pen Reverse (Reverse Point)
PU Pen Up (No Draw)

MESSAGE SENDING

TELL opens channel to specific object
TELL TURTLE Alerts Turtle
TELL 0 Alerts Sprite 0
TELL (1 3) Alerts Sprites 1 and 3
TELL ALL Alerts Sprites (0 to 3)
TELL :X Alerts Object :X
TELL BG Alerts Background
TELL TILE 3 Alerts Tile #3

EACH ([command yn]
(yn = Your Number) (commands for Each Sprite. Used with TELL ALL, tricky, watch it)

Example: TELL ALL EACH (SXY 90 SC 3)

SHAPE and COLOR

SC Set Color

Example: SC :RED
SC 3
SC (3 8) Set FG/BG of object

CARRY Carry Shape CARRY 5 (Box)

LOOKLIKE (Same as CARRY)

BIG Make Shape Big (32x32)
SMALL Make Shape Small (16x16)
MC Make Character in Tile Mode
MS Make Sprite (# Shape)
PT Put Tile # x y
CS Clear Screen
CB Color Background

Examples:

CB 1 Color Background black
CB :OLIVE Color background Olive
MC 32 (any number 0 to 255)
MS 6 (Any number 0-25)
PT 19 30 29 (Put Tile #19, x=30, y=29)

PROGRAM MANAGEMENT

YOURNUMBER YN, Outputs current Sprit
WHO Outputs current graphics object
WHERE Outputs turtle's x y and headin
XCOR Outputs X coordinate
YCOR Outputs Y coordinate
XVEL Outputs X velocity
YVEL Outputs Y velocity
SIZE Outputs 16 if SMALL, 32 if BIG
SHAPE Outputs active Sprite or Shape
SPEED Outputs speed of current Sprite
COLOR Outputs the color of active Til

FILE MANAGEMENT

ERASE (name)
SAVE Saves info to disk or cassette
RECALL Recalls saved files one a time
PO PRINTOUT Prints All procedures
PA Prints All procedures and names
PR Prints All currently defined name
PP Prints title line of All procedure



**SUPPLIERS OF
TI99/4A
COMPATIBLE
PRODUCTS**

February 1993 -- List
compiled by Gary W.
Cox

The following is a list of vendors of products for the TI99/4a and Omega 9640 computers. The list is not complete as there are more suppliers than what is listed but this covers a good portion of them. Those listed with an asterisk (*) beside the name indicate that it has been a while since last contact with that company. Listings are in no particular order and information listed is correct to the best of my knowledge.

TM Direct Product Marketing
1650 Broadway
Redwood City, CA 94063
1-800-336-9966

Texcomp
P.O. Box 33804
Granada Hills, CA 91344
(818) 366-6631

Joy Electronics
P.O. Box 542526
Dallas, TX 75354-2526

(214) 243-5371
(800) 442-3892 Texas
(800) 527-7438 Outside
Texas

Doc Miller Services
166 Dartmouth Drive
Toledo, OH 43614
(419) 385-5946

I.L. Cooner Enterprises
1521 Ferry Street
Lafayette, IN 47901
(317) 742-8146

Rave 99
112 Raabing Rd.
Vernon, CT 06066
(203) 871-7824

Asgard Software
1433 Flieship Drive
Woodbridge, VA 22192
(703) 491-1267 7-10pm EST
(716) 778-9104 11am-7pm
EST

Tesseract Software
156 Gallopwood Ave.
Columbus, OH 43213
(614) 235-3545

Terasemite
53 Center Street
Patchogue, NY 11772
(516) 475-3480
(516) 475-6463 24hr BBS

Barrison Software
5705 40th Place
Baltimore, MD 20781
(301) 277-3467

Competition Computer Products
2219 S. Bunkago Ave.
Bilwoues, WI 53215
(800) 662-9253 (national)
(800) 242-7902 (Wis)
(414) 672-1600

Runter Electronics
4 N. 370 Pine Grove
Bensenville, IL 60106
(312) 766-8503

Comproline Software
1949 Evergreen Ave
Fullerton, CA 92635
(714) 990-4577

Arcade Action Software
4122 N. Glenway
Bauwauosa, WI 53222

Crystal Software
635 Beckman
Calumet City, IL 60409-
4014
(708) 891-2315

Ranchyard Computers
6467 E. Nancy Dr.
Brookpark, OH 44112
(800) 659-1214
(216) 243-1244

Electronic Sys Development
P.O. Box 23805
Washington DC 20006
(301) 322-4150

J.P. Software
2390 El Camino Real #107
Palo Alto, CA 94306
(415) 328-0885

Western Horizon Technologies
Don O'Hall
10225 Jean Ellen Dr.
Galton, CA 95020
(408) 848-5947

Jas Leisher
722 Rumlter
Dallas, TX 75214
(214) 821-9274

The Bonnard Group
P.O. Box 62323
Gold Springs, CO 80962-
2323
(719) 488-2572

caDD Electronics
81 Prescott Road
Raymond, NH 03077

(603) 895-0119
Albaca Computer Suppliers

6298 Banilton Rd
36 Main Street Village
Columbus, GA 31908
(404) 327-4900

Breaz Computer Services
719 E. Byrd St.
Apleton, WI 54911
(414) 731-3478 (order
line)
(414) 731-4320 (after 6
pm)

McCana Software
4411 North 93rd St
Omaha, NE 68134

Notung Software
7647 McGowery St.
Tanjung, CA 91042
(818) 951-2718

ORA
437 Jarvis St. Ste. 502
Toronto, Ontario M4T 2H3
Canada
(416) 960-0925

ICMA Products
5618 Applebatter Hill Rd
Coopersburg, PA 18036

D. Bright Staff
2201 185 North Post Road
Indianapolis, IN 46219
(317) 895-1765

Medie Rare Software
2141 RR 64th Ave Suite 15
Sunnyside, FL 33133-3950
(305) 749-4690

MS Express Software
P.O. Box 498
Richmond, OH 43944-0498
(614) 282-5627

SAT BBS Software/Tin Teach
3804 North 75th St.
Milwaukee, WI 53216

(414) 464-4946 (voice)
(414) 464-1978 (BBS)

TI/GENEVE SUPPORTIVE PUBLICATIONS

Microprodiva Rogezine
P.O. Box 1343
Round Rock, TX 78680-1343
(512) 255-1512
\$25 year (U.S.)

Camial TRAPLER Diskette
835 Green Valley Drive
Pittsdelphia, PA 19128
(215) 483-1379 (on disk)

9640 Bars (Genuine owners)
P.O. Box 752465
Memphis, TN 38175-2465
(901) 358-0112 (BBS)

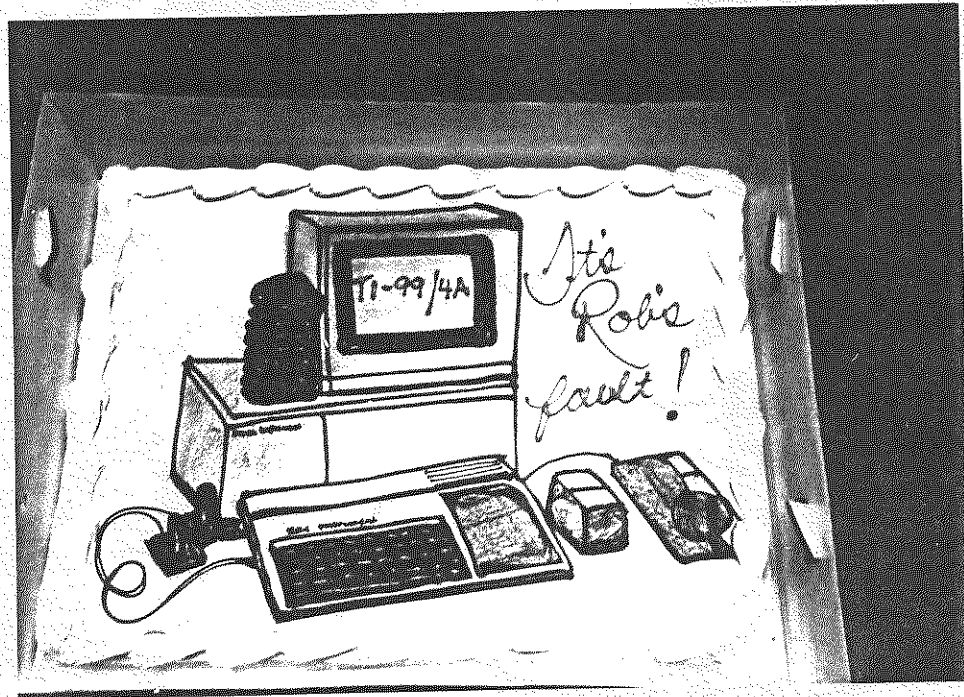
For repairs contact:

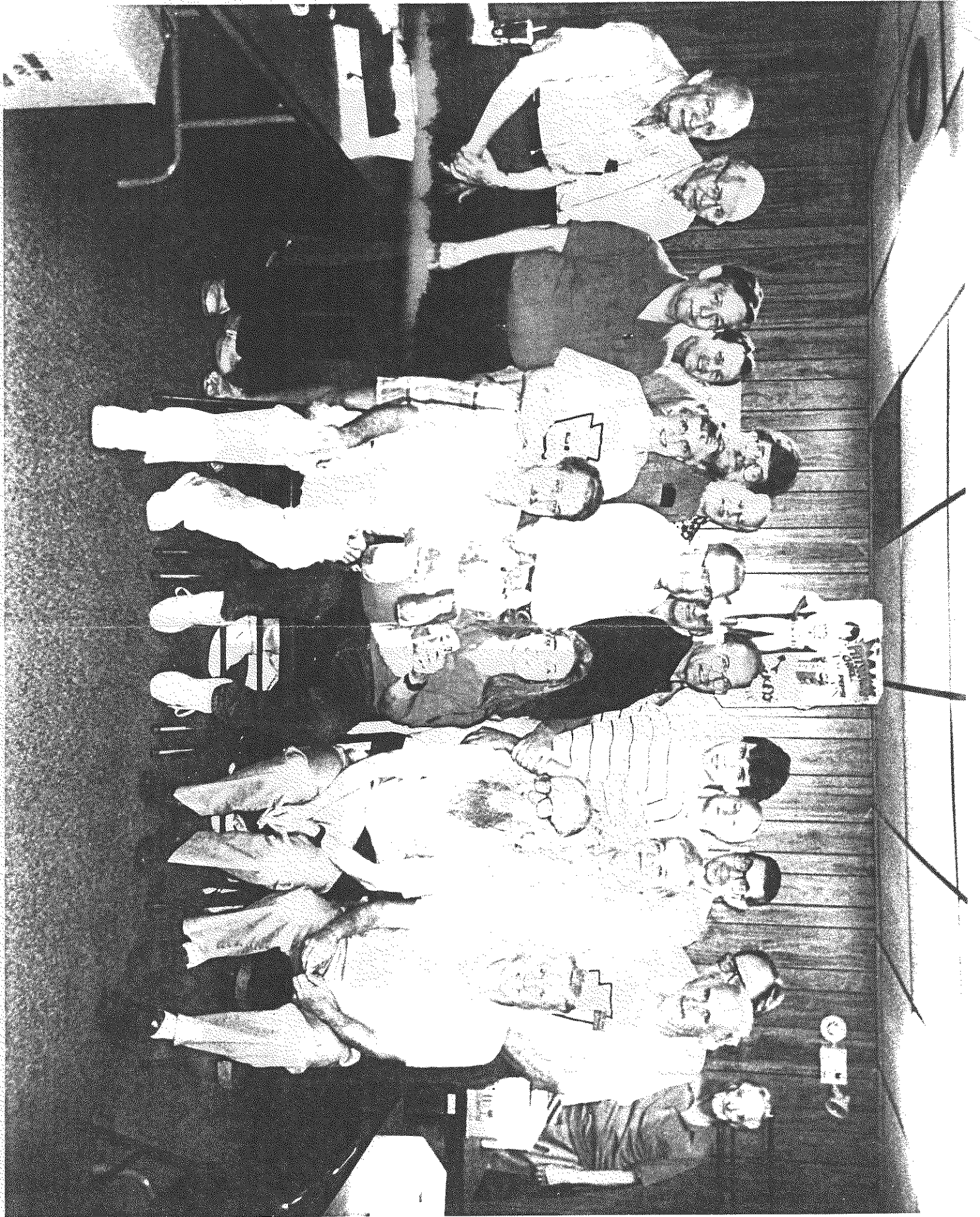
Texas Instruments Inc
Attn 9974e Repair Center
2305 North University
Ave.
Lubbock, TX 79408
(800) TI-CARES
(806) 747-1887

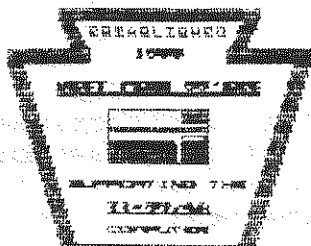
(Repair of Corcomp products)
99 computer Repair
C/O David Lynch
2101 W Crescent Ave Unit A
Anaheis, CA 92801
(714) 539-4034

Western Horizon Technologies
Don O'Hall
10225 Jean Ellen Dr
Galton, CA 95020
(408) 848-5947

(Authorized Marc repair)
Secure Electronics
South 81 West 18878
Apollo Dr
P.O. Box 132
Muskego, WI 53150
(414) 679-4343
(414) 529-2173







WEST PENN 99

I gave you an artical about disk drives and disks last month, and I don't know if I was of any help. I had a lot of problems in the past, and I am trying to find more about these monsters. Every time I take a disk from the P-Box it stops working.

In September 1988, John Wilforth wrote about disk drives in a series of articals. This was before I had a disk system. The articals ran untill June 1989. These articals I still have in my personal library, I am not sure if the club still has them, if anyone is interested let me know at the meeting or get hold of Mickey. I still use these articals as an reference. Afterwards John started a series of articals on printers. I think that all this information is still valuable today.

I have the opportunity to read the Newsletters. The articals that I come across I find very useful and I pass that information back to you through our Newsletter. You may ask why I re-type the artical. I say, because I need the practice. Mostly some of the articals are split and have blotches or have words that have to be magnifying glass to make them out. So if I make a typo or leave a word out it is totally my mistake!!

I came across a TWO-COLUMN formatter for PagePro99 in Extended Basic, written by Bill Gaskill in the June issue of Micropendum. I typed it in and found that it was just what I needed. I seem to be rushed for time, and I need all the timesavers I can get. Those of you that use PagePro99 and want two column know what I meant about getting a

Document ready for two columns. With this formatter- one step does it all. Sometimes I can spend a few hours trying to get the TI-Writer and two columns to work right. I found this PagePro formatter just what I needed. Guess what, you just type the program in. THANKS BILL.

Other things that I found was the artical about YOU DON'T HAVE TO HAVE IT ALL by Jim Peterson. He has some good hints for those that think that they want things that they don't really need. I didn't Re-Write the artical, because it was in almost every Newsletter.

In the Dallas 99 Interface > May 1993, there is an artical on repair your disk drive by Greg Hudson. I found the artical just before I started to write this artical. Maybe Mickey can be a hardware person after all!!!

Also in the Dallas 99 Inrterface > April 1993 another artical from Bill Gaskill titled QUICK ACCESS. This is an easy way to keep track of all your hardware and software > With TI-Writer and Extended Basic. Another type in program, this is another program worth typing in.

HUMOR

My wife and I were shopping when I noticed a Laser Printer on display. I relized that I would like to purchase it for my TI.

"When are you going to stop buying that expensive stuff", complained the wife, "and stop thinking like President Clenton".

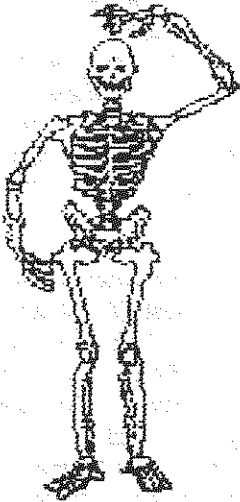
"The day that I am

PAUL 'S PAGE

inaugurated", I replied.

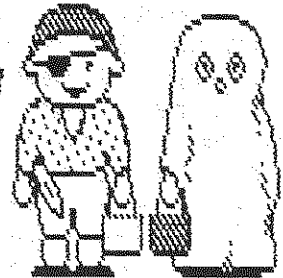
I was writing an artical with TI-Writer, when I had finished I decided to Fax it to Ralph. I

started to read the instructions, they were in or just like Assembly Language, my tie got stuck in the FAX machine and the next thing I knew I was in Australia.



HAPPY

HOLLOWEEN



Made in
U.S.A.

WEST PENN 99 'ERS

C/O MICKEY CENDROWSKI
R. D. 1 BOX 133
RUSSELLTON, PA 15076

**BULK RATE
U.S POSTAGE PAID
DONORA, PA 15033
PERMIT NO. 160**

ADDRESS CORRECTION REQUESTED

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MICKEY CENDROWSKI
RD1 BOX 133
RUSSELTON PA 15076